

RAW SEQUENCE LISTING

**The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.**

Application Serial Number: 10/547,207
Source: PCT
Date Processed by STIC: 09/07/2005

ENTERED



PCT

RAW SEQUENCE LISTING

DATE: 09/07/2005

PATENT APPLICATION: US/10/547,207

TIME: 15:02:02

Input Set : A:\VB60033 seq list.TXT

Output Set: N:\CRF4\09072005\J547207.raw

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4 <110> APPLICANT: Glaxo Group Limited
5     HAMBLIN, Paul Andrew
6     ROCHA DEL CURA, Maria de los Angeles
8 <120> TITLE OF INVENTION: Vaccines
11 <130> FILE REFERENCE: VB60033
C--> 13 <140> CURRENT APPLICATION NUMBER: US/10/547,207
C--> 14 <141> CURRENT FILING DATE: 2005-08-26
16 <150> PRIOR APPLICATION NUMBER: GB0304634.9
17 <151> PRIOR FILING DATE: 2003-02-28
19 <160> NUMBER OF SEQ ID NOS: 16
21 <170> SOFTWARE: FastSEQ for Windows Version 4.0
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24 <211> LENGTH: 20
25 <212> TYPE: PRT
26 <213> ORGANISM: Homo sapiens
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31 Gly Val Thr Ser
32          20
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36 <211> LENGTH: 20
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38 <213> ORGANISM: Homo sapiens
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44          20
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49 <212> TYPE: PRT
50 <213> ORGANISM: Homo sapiens
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55 Asp Val Thr Ser
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60 <211> LENGTH: 20
61 <212> TYPE: PRT
62 <213> ORGANISM: Homo sapiens
64 <400> SEQUENCE: 4

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67 Gly Val Thr Ser
68 20
71 <210> SEQ ID NO: 5
72 <211> LENGTH: 20
73 <212> TYPE: PRT
74 <213> ORGANISM: Homo sapiens
76 <400> SEQUENCE: 5
77 Ala Pro Asp Asn Arg Pro Ala Leu Gly Ser Thr Ala Pro Pro Val His
78 1 5 10 15
79 Asn Val Thr Ser
80 20
83 <210> SEQ ID NO: 6
84 <211> LENGTH: 9
85 <212> TYPE: PRT
86 <213> ORGANISM: Homo sapiens
88 <400> SEQUENCE: 6
89 Phe Leu Ser Phe His Ile Ser Asn Leu
90 1 5
93 <210> SEQ ID NO: 7
94 <211> LENGTH: 21
95 <212> TYPE: PRT
96 <213> ORGANISM: Homo sapiens
98 <400> SEQUENCE: 7
99 Asn Ser Ser Leu Glu Asp Pro Ser Thr Asp Tyr Tyr Gln Glu Leu Gln
100 1 5 10 15
101 Arg Asp Ile Ser Glu
102 20
105 <210> SEQ ID NO: 8
106 <211> LENGTH: 9
107 <212> TYPE: PRT
108 <213> ORGANISM: Homo sapiens
110 <400> SEQUENCE: 8
111 Asn Leu Thr Ile Ser Asp Val Ser Val
112 1 5
115 <210> SEQ ID NO: 9
116 <211> LENGTH: 1818
117 <212> TYPE: DNA
118 <213> ORGANISM: Artificial Sequence
120 <220> FEATURE:
121 <223> OTHER INFORMATION: codon modified DNA
123 <400> SEQUENCE: 9
124 gctagcgcca ccattgtctag aacaccgggc acccagtctc ctttcttcct gctgctgctc 60
125 ctcacagtgc ttacagttgt tacaggttct ggtcatgcaa gctctacccc aggtggagaa 120
126 aaggagactt cggctacca gagaagttca gtgccagct ctactgagaa gaatgctgtg 180
127 agtatgacca gcagcgctact ctccagccac agccccggtt caggctcctc caccactcag 240
128 ggacaggatg tcactctggc cccggccacg gaaccagctt caggttcagc tgccacctgg 300
129 ggacaggatg tcacctcggc cccagtcacc aggccagccc tgggctccac caccgcccca 360

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130 gcccacgatg tcacctcagc cccggacaac aagccagccc cgggctccac cgccccccca 420
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132 gcccacggtg tcacctcggc cccggacacc aggccggccc cgggctccac cgccccccca 540
133 gcccacggtg tcacctcggc cccggacacc aggccggccc cgggctccac cgccccccca 600
134 gcccacggtg tcacctcggc cccggacacc aggccggccc cgggctccac cgccccccca 660
135 gcccacggtg tcacctcggc cccggacacc aggccggccc cgggctccac cgccccccca 720
136 gcccacggtg tcacctcggc cccggacacc aggccggccc cgggctccac cgccccccaa 780
137 gcccacggtg tcacctcggc cccggacacc aggccggccc cgggctccac cgccccccca 840
138 gcccacggtg tcacctcggc cccggacacc aggccggccc cgggctccac cgccccccca 900
139 gtcacacaatg tcacctcggc ctcaggctct gcacaggct cagcttctac tctggtgcac 960
140 aacggcacctg ctggcagggc taccacaacc ccagccagca agagcactcc attctcaatt 1020
141 cccagccacc actctgatac tctaccacc cttgccagcc atagcaccaa gactgatgcc 1080
142 agtagcactc accatagcac ggtacctcct ctcacctcct ccaatcacag cacttctccc 1140
143 cagttgtcta ctggggtctc tttctttttc ctgtcttttc acatttcaaa cctccagttt 1200
144 aattcctctc tggaagatcc cagcaccgac tactaccaag agctgcagag agacatttct 1260
145 gaaatgtttt tgcagattta taaacaaggg ggttttctgg gcctctccaa tattaagttc 1320
146 aggccaggat ctgtggtggt acaattgact ctggccttcc gagaaggtac catcaatgtc 1380
147 cagcagctgg agacacagtt caatcagtat aaaacggaag cagcctctcg atataacctg 1440
148 acgatctcag acgtcagcgt gagtgatgtg ccatttcctt tctctgcca gtctggggct 1500
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152 catggcgct atgtgcccc tagcagtacc gatcgtagcc cctatgagaa ggtttctgca 1740
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154 ttgtctagat agctcgag                                     1818
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157 <211> LENGTH: 1290
158 <212> TYPE: DNA
159 <213> ORGANISM: Artificial Sequence
161 <220> FEATURE:
162 <223> OTHER INFORMATION: codon modified DNA
164 <400> SEQUENCE: 10
165 atgtctagaa caccgggcac ccagtctcct ttcttctctg tgctgctcct cacagtgctt 60
166 acagttgtta caggttctgg tcatgcaagc tctaccccag gtggagaaaa ggagacttct 120
167 gctaccaga gaagttcagt gccagctct actgagaaga atgctgtgag tatgaccagc 180
168 agcgtactct ccagccacag ccccggttca ggctcctcca ccactcaggg acaggatgtc 240
169 actctggccc cggccacgga accagcttca ggttcagctg ccacctgggg acaggatgtc 300
170 acctcgggtc cagtcaccag gccagccctg ggctccacca ccccgccagc ccacgatgtc 360
171 acctcagccc cggacaacaa gcccattgtc acctcggcct caggctctgc atcaggctca 420
172 gcttctactc tgggtgcaca cggcacctct gccagggcta ccacaacccc agccagcaag 480
173 agcactccat tctcaattcc cagccaccac tctgatactc ctaccaccct tgccagccat 540
174 agcaccaaga ctgatgccag tagcactcac catagcacgg tacctcctct cacctcctcc 600
175 aatcacagca cttctcccca gttgtctact ggggtctctt tctttttcct gtcttttcac 660
176 atttcaaacc tccagtttaa ttctctctcg gaagatccca gcaccgacta ctaccaagag 720
177 ctgcagagag acatttctga aatgtttttg cagatttata aacaaggggg ttttctgggc 780
178 ctctccaata ttaagttcag gccaggatct gtggtggtac aattgactct ggccttccga 840
179 gaaggtacca tcaatgtcca cgacgtggag acacagttca atcagtataa aacggaagca 900
180 gcctctcgat ataacctgac gatctcagac gtcagcgtga gtgatgtgc atttcctttc 960
181 tctgcccagt ctggggctgg ggtgccaggc tggggcatcg cgctgctggt gctggtctgt 1020

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182 gttctggttg cgctggccat tgtctatctc attgccttgg ctgtctgtca gtgccgccga 1080
183 aagaactacg ggcagctgga catctttcca gcccgggata cctaccatcc tatgagcgag 1140
184 taccacacct accacaccca tgggcgctat gtgccccta gcagtaccga tcgtagcccc 1200
185 tatgagaagg tttctgcagg taatggtggc agcagcctct cttacacaaa cccagcagtg 1260
186 gcagccactt ctgccaactt gtctagatag 1290

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188 <210> SEQ ID NO: 11

189 <211> LENGTH: 1290

190 <212> TYPE: DNA

191 <213> ORGANISM: Artificial Sequence

193 <220> FEATURE:

194 <223> OTHER INFORMATION: codon modified DNA

196 <400> SEQUENCE: 11

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198 accgtggtga cgggaagcgg ccacgcttcg tccacgcccg gcggcgagaa ggaaaccagt 120
199 gcaaccacgc gcagctccgt gccagctcc accgagaaaa acgctgtgag catgacgtcc 180
200 agtgtcctct ctagccatag ccccggtctt gggagcagta ccaccaggg ccaggacgtg 240
201 actctcgccc ccgctacgga gcccgcttct ggctccgccc ccacctgggg ccaggacgtg 300
202 acctctgtgc cgttcacacg ccctgtctct ggctctacca ctctcctgct ccatgacgtg 360
203 acctcggtct cggacaataa gcccaacgtg acgagtgcc gcgggagcgc ctcggggtcc 420
204 gccagtaccc tgggtgcataa cgggaccagt gctagggcca ccaccacccc cgctcgaaag 480
205 agcaccacct tctctatccc gtctcatcat agcgacacac ctacaaccct ggcgagccac 540
206 agcaccaaga ccgacgttct ttccacacat catagcaccg tgccaccact caccagctcc 600
207 aaccattcca ccagccccc gctgagcacc ggagtgtcct tcttcttctt gagcttccat 660
208 atcagtaacc tccagttcaa ctccagcctc gaggaccct ctaccgacta ctatcaggag 720
209 ctgcagcggg acatcagcga gatgtttctg cagatctaca agcagggggg cttcctcggc 780
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212 gccagcaggt ataacctgac catctccgac gtctctgtga gcgacgtccc cttcccttct 960
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214 gtgctggtgg ccttggccat cgtgtacctg atcgccctgg ccgtctgtca atgcaggcgc 1080
215 aagaactacg gccagctcga catcttccca gctcgggata cctatcatcc catgagcgag 1140
216 taccacacct accacaccca tggccgctac gttcctccct ccagcaccga ccgcagccct 1200
217 tacgagaagg tgagcgccgg gaatgggggg agttctctct cttacacaaa ccccgccgtg 1260
218 gccgccacga gcgccaacct ctccaggtga 1290

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220 <210> SEQ ID NO: 12

221 <211> LENGTH: 1290

222 <212> TYPE: DNA

223 <213> ORGANISM: Artificial Sequence

225 <220> FEATURE:

226 <223> OTHER INFORMATION: codon modified DNA

228 <400> SEQUENCE: 12

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229 atgtcccga cccctggcac ccagtccccc ttctttctcc tgctgtgctc caccgtgctg 60
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231 gctaccacgc gcagctctgt gccttccagc acggagaaga acgctgtgag tatgacttcc 180
232 tccgtgctga gctcccatag ccccggtctg gccagctcca ccaccaggg gcaggacgtg 240
233 acactggctc ccgcaaccga gcccgctctt ggctctgccc ccacctgggg ccaggacgtg 300
234 acatccgtgc ccgtgacccc ccccgccctg gccagacca cccccctgct tcatgacgtc 360
235 acctctgcgc ctgacaacaa gcctaacgtg acgtccgctt ccggcagcgc ctccgggtcc 420
236 gcctccacac tgggtgcataa cggaaacctc gcgcgcgcca ccaccacccc agcgagcaag 480

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239 aaccattcta cctcccccca gctgagcacg ggggtgagct ttttcttctt gtccttccat 660
240 atcagcaacc tccagttcaa ttctctcttg gaggaccca gcaccgacta ctaccaagag 720
241 ctgcagcggg acatctccga gatgttcttg cagatctaca aacagggcgg cttcttgagg 780
242 ttgagcaaca tcaagttccg ccccggttcc gtggtggtgc agctcaccct ggcttccagg 840
243 gagggcacca tcaacgtgca tgacgtcgag acccagttca atcagtataa gaccgaggcc 900
244 gcctcccggt acaacctgac gatcagcgac gtgtctgtgt ccgacgtgcc cttcccttcc 960
245 tccgcacagt ccggcgccgg cgtgccgggc tggggcatcg ccctgctcgt gttggtgtgc 1020
246 gtgctcgtgg ccctcgccat cgtgtacctg atcgccctgg ccgtctgtca gtgcaggaga 1080
247 aagaactatg ggcagttgga tatcttcccc gccagggaca cctaccacc cagtcccgag 1140
248 taccaccact accacaccca cggccgctat gtccctccct cctcgaccga ccgtccctcc 1200
249 tacgagaagg tgagcgccgg caacggaggc agctccctgt cctacaccaa ccctgccgtg 1260
250 gccgccacaa gcgccaacct gagccgctga 1290

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254 <212> TYPE: DNA

255 <213> ORGANISM: Artificial Sequence

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258 <223> OTHER INFORMATION: codon modified DNA

260 <400> SEQUENCE: 13

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263 ccggcgggcg agaaggagac cagtgtacc cagcgagct ctgtgccttc cagcacggag 180
264 aagaacgctg tgagtatgac ttctccgtg ctgtcctccc atagccccgg ctcgggcagc 240
265 tccaccacc aggggcagga cgtgacactg gctcccgcaa ccgagcccg cctgggctct 300
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267 accaccccc ctgctcatga cgtcacctca gcgcctgaca acaagcctaa cgtgagctcc 420
268 gcttccggca gcgcctccgg ctcagcctcc aactggtgc ataacggaac ctccgcgcgc 480
269 gccaccacca cccagcgag caagagcacc cccttctcta tcccccca tcatagcgac 540
270 acaccacca cgctggccag ccatagcacc aaaaccgacg cctctagcac ccaccactcc 600
271 acggtgcccc ccctgacctc cagcaaccat tctacctccc ccagctgtc cacgggggtg 660
272 agctttttct tctgtcctt ccatatcagc aacctccagt tcaattctc tctggaggac 720
273 ccagcaccg actactacca agagctgcag cgggacatct ccgagatgtt cctgcagatc 780
274 taaaaacagg gcggttcct gggattgagc aacatcaagt tccgccccgg gtccgtggtg 840
275 gtgcagctca ccctggcctt cagggagggc accatcaacg tgcagacgt cgagaccag 900
276 ttcaatcagt ataagaccga ggccgcctcc cgttacaacc tgacgatcag cgacgtgtct 960
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278 atcgccctgc tcgtgttggg gtgctgtctc gtggccctcg ccatcggtga cctgatcgcc 1080
279 ctggccgtct gtcagtgacg gagaaagaac tatgggcagt tggatatctt ccccgccagg 1140
280 gacacctacc accccatgtc cgagtacccc acctaccaca cccacggccg ctatgtccct 1200
281 ccctcctcga ccgaccgtc cccttacgag aaggtgagcg ccggcaacgg aggagctcc 1260
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285 <210> SEQ ID NO: 14

286 <211> LENGTH: 1818

287 <212> TYPE: DNA

288 <213> ORGANISM: Artificial Sequence

290 <220> FEATURE:

VERIFICATION SUMMARY

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L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date